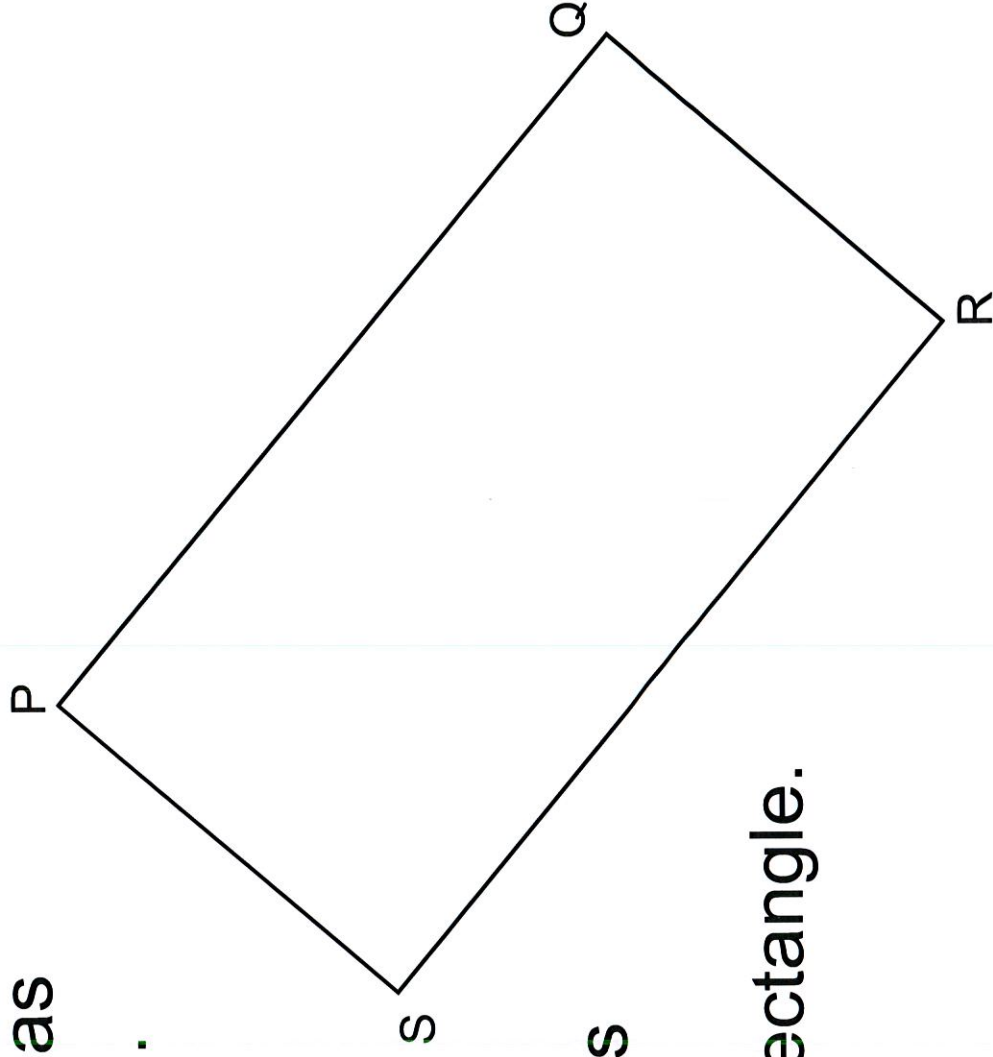


# Lines and Rectangles

Line segment SP has equation  $y = 2x + 3$ .

Find the equations of the line segments forming the other three sides of the rectangle.



### Card Set: Equations

	$4y = x + 3$
$y = 8x - 3$	$y + 4x + 6 = 0$
$3y = 2x - 8$	$y + 6x = 11$
$2y + 8 = 3x$	$2y + x = 4$
$2y = 8x + 3$	$y = 6x - 4$

## Properties

<b>These lines are parallel</b>	<b>These lines are perpendicular</b>
<b>These lines have the same y-intercept</b>	<b>These lines have the same x-intercept</b>
<b>These lines go through the point (1,5)</b>	

S

# Parallel and Perpendicular Lines

Here are some equations of straight lines:

$y + 2x = 8$	$2y + \frac{1}{2}x + 1 = 0$	$4y - x = 1$	$y = x - 4$	$y = 2(x - 1)$
$2y = x - 4$	$y + 2x + 2 = 0$	$y = \frac{1}{2}x + 2$	$y = 4 - x$	$2y = 4 - x$

1. Which four lines form the four sides of a rectangle?

Explain your reasoning carefully.

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2. Complete the drawing below to show the four lines and the  $x$ - and  $y$ -axes.

Label the lines clearly.

